STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO:	6. SURFACE:
ML-22794	State

1A. TYPE OF WORK: DRILL ☑ REENTER ☐ DEEPEN ☐

7. IF INDIAN, ALLOTTEE OR TRIBE NAME:

B. TYPE OF WELL: OIL ☐ GAS ☑ OTHER _____ SINGLE ZONE ☐ MULTIPLE ZONE ☑

8. UNIT or CA AGREEMENT NAME:

2. NAME OF OPERATOR:
KERR McGEE OIL & GAS ONSHORE L.P.

9. WELL NAME and NUMBER:
STATE 1021-31C

3. ADDRESS OF OPERATOR:
1368 S 1200 E CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER:
(435) 781-7024

10. FIELD AND POOL, OR WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 857' FNL 2523' FWL 620147X 4418403Y 39.909094 -109.594392
AT PROPOSED PRODUCING ZONE:

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
NENW 31 10S 21E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE:
16.4 MILES SOUTH OF OURAY, UTAH

12. COUNTY:
UINTAH

13. STATE:
UTAH

15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET)	16. NUMBER OF ACRES IN LEASE:	17. NUMBER OF ACRES ASSIGNED TO THIS WELL:
857'	643.12	40.00

18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)	19. PROPOSED DEPTH:	20. BOND DESCRIPTION:
REFER TO TOPO C	9,320	RLB0005237

21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.):	22. APPROXIMATE DATE WORK WILL START:	23. ESTIMATED DURATION:
5295'GL		

24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
12 1/4"	9 5/8	H-40	32.3#	1,900	265 SX CLASS G	1.18 YIELD	15.6 PPG
7 7/8"	4 1/2	I-80	11.6#	9,320	1980 SX 50/50 POZ	1.31 YIELD	14.3 PPG

25. **ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
☑ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER
☑ COMPLETE DRILLING PLAN
☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) RAMEY HOOPES TITLE LAND SPECIALIST I

SIGNATURE Ramey Hoopes DATE 4/18/2007

RECEIVED
APR 2 3 2007
DIV. OF OIL, GAS & MINING

(This space for State use only)

API NUMBER ASSIGNED: 43-047-39715

Approved by the Utah Division of Oil, Gas and Mining

APPROVAL:

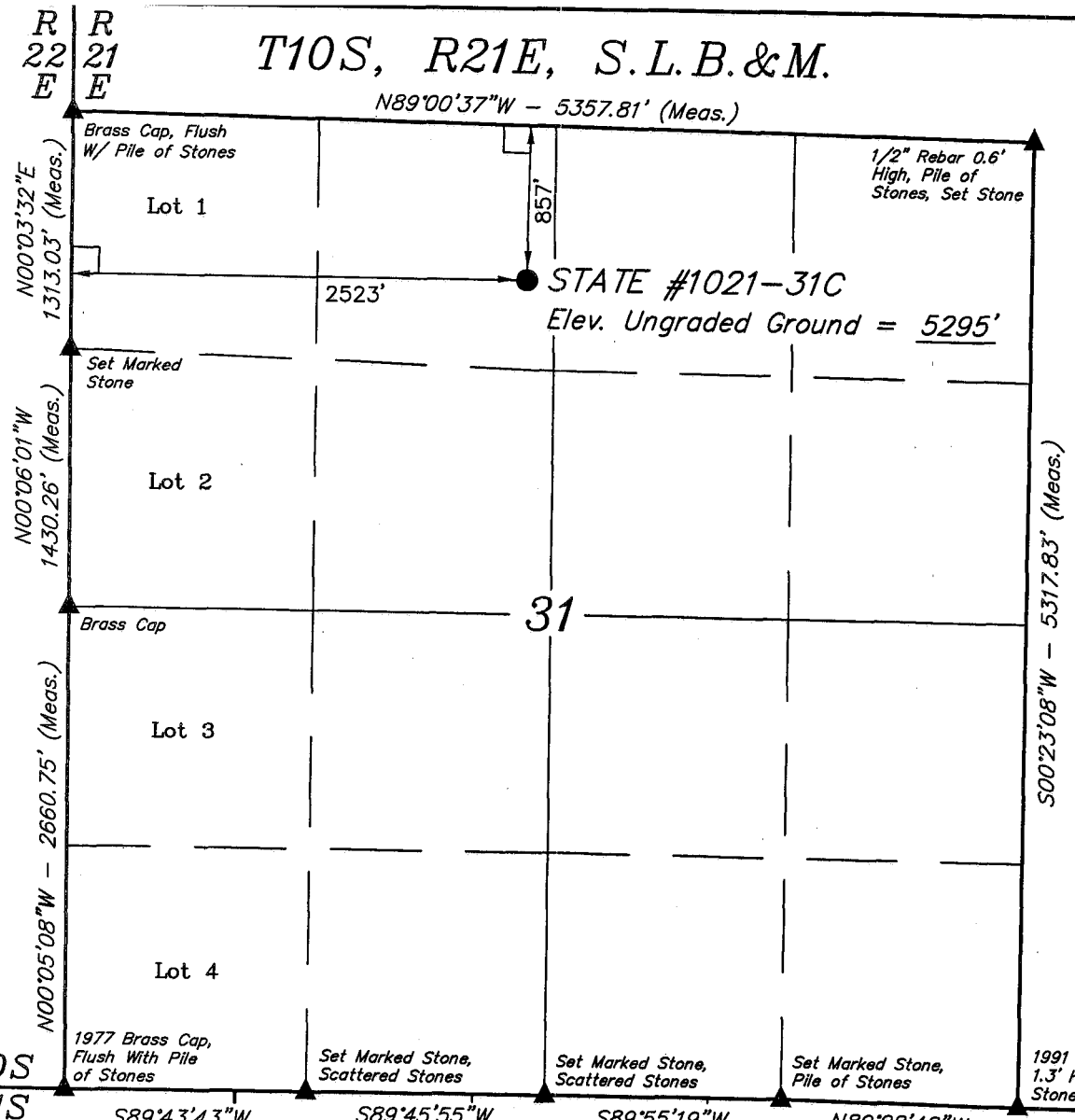
Date: 12-15-08
By:

(See Instructions on Reverse Side)

(11/2001)

Kerr-McGee Oil & Gas Onshore LP

Well location, STATE #1021-31C, located as shown in the NE 1/4 NW 1/4 of Section 31, T10S, R21E, S.L.B.&M., Uintah County, Utah.

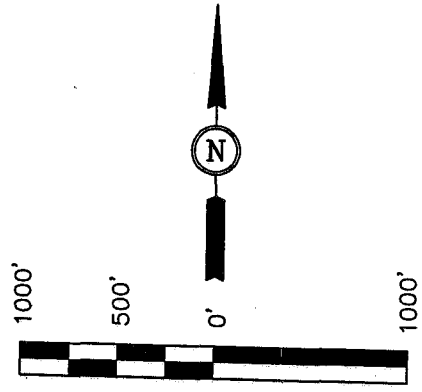


BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



SCALE

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PL[illegible] WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

LEGEND:

- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(NAD 83)
LATITUDE = 39°54'32.46" (39.909017)
LONGITUDE = 109°35'42.27" (109.595075)
(NAD 27)
LATITUDE = 39°54'32.58" (39.909050)
LONGITUDE = 109°35'39.79" (109.594386)

Revised: 4-12-07

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 12-29-06	DATE DRAWN: 1-2-07
PARTY D.K. L.M. K.G.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE Kerr-McGee Oil & Gas Onshore LP	

STATE 1021-31C
NE/NW SEC. 31, T10S, R21E
UINTAH COUNTY, UTAH
ML-22794

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. **Estimated Tops of Important Geologic Markers:**

Formation	Depth
Uinta	0- Surface
Green River	1035'
Top of Birds Nest Water	1266'
Mahogany	1789'
Wasatch	4212'
Mesaverde	7144'
MVU2	8150'
MVL1	8661'
TD	9320'

2. **Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:**

Substance	Formation	Depth
	Green River	1035'
Water	Top of Birds Nest Water	1266'
	Mahogany	1789'
Gas	Wasatch	4212'
Gas	Mesaverde	7144'
Gas	MVU2	8150'
Gas	MVL1	8661'
Water	N/A	
Other Minerals	N/A	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program.

6. **Evaluation Program:**

Please refer to the attached Drilling Program.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 9320' TD, approximately equals 5778 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3728 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

Drilling is planned to commence immediately upon approval of this application.

9. **Variances:**

Please refer to the attached Drilling Program.

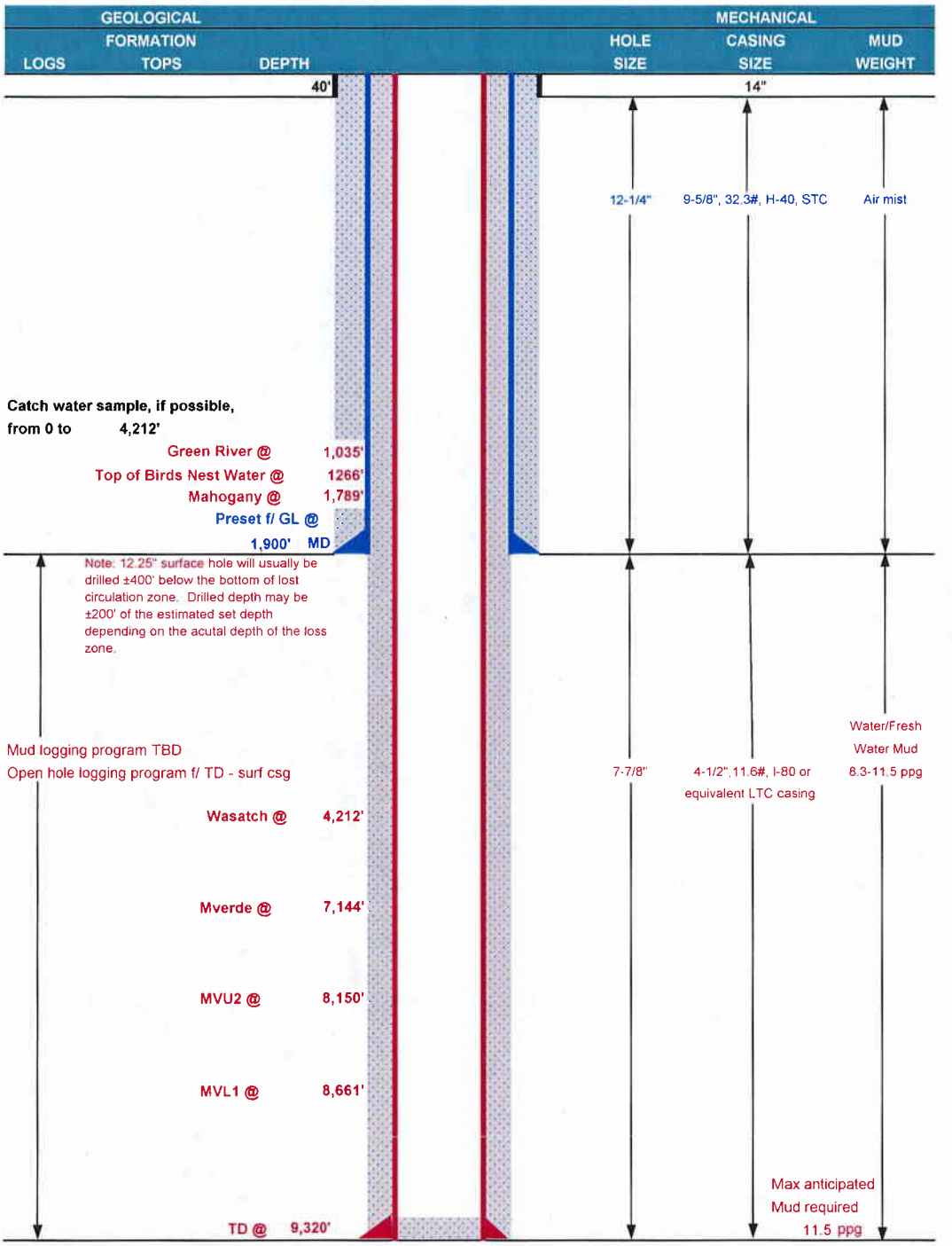
10. **Other Information:**

Please refer to the attached Drilling Program.

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	April 26, 2007		
WELL NAME	**STATE 1021-31C**			TD	9,320'	MD/TVD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	ELEVATION	5,294' GL KB 5,309'
SURFACE LOCATION	NE/NW SEC. 31, T10S, R21E 857'FNL, 2523'FWL					BHL	Straight Hole
	Latitude: 39.909314 Longitude: 109.597008						
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: UDOGM (SURF & MINERALS),Tri-County Health Dept.						



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				2270	1370	254000
SURFACE	9-5/8"	0 to 1900	32.30	H-40	STC	0.64********	1.54	4.73
						7780	6350	201000
PRODUCTION	4-1/2"	0 to 9320	11.60	I-80	LTC	2.21	1.14	2.13

1) Max Anticipated Surf. Press (MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.5 ppg) .22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3523 psi

******** Burst SF is low but csg is much stronger than formation at 2000'. EMW @ 2000' for 2270# is 21.8 ppg or 1.13 psi/ft

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	50		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE Option 2		NOTE: If well will circulate water to surface, option 2 will be utilized					
	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite + 25 pps Flocele + 3% salt BWOC	170	35%	11.00	3.82
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	180	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,710'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	410	60%	11.00	3.38
	TAIL	5,610'	50/50 Poz/G + 10% salt + 2% gel + 1% R-3	1570	60%	14.30	1.31

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

DRILLING ENGINEER: _____ **DATE:** _____

Brad Laney

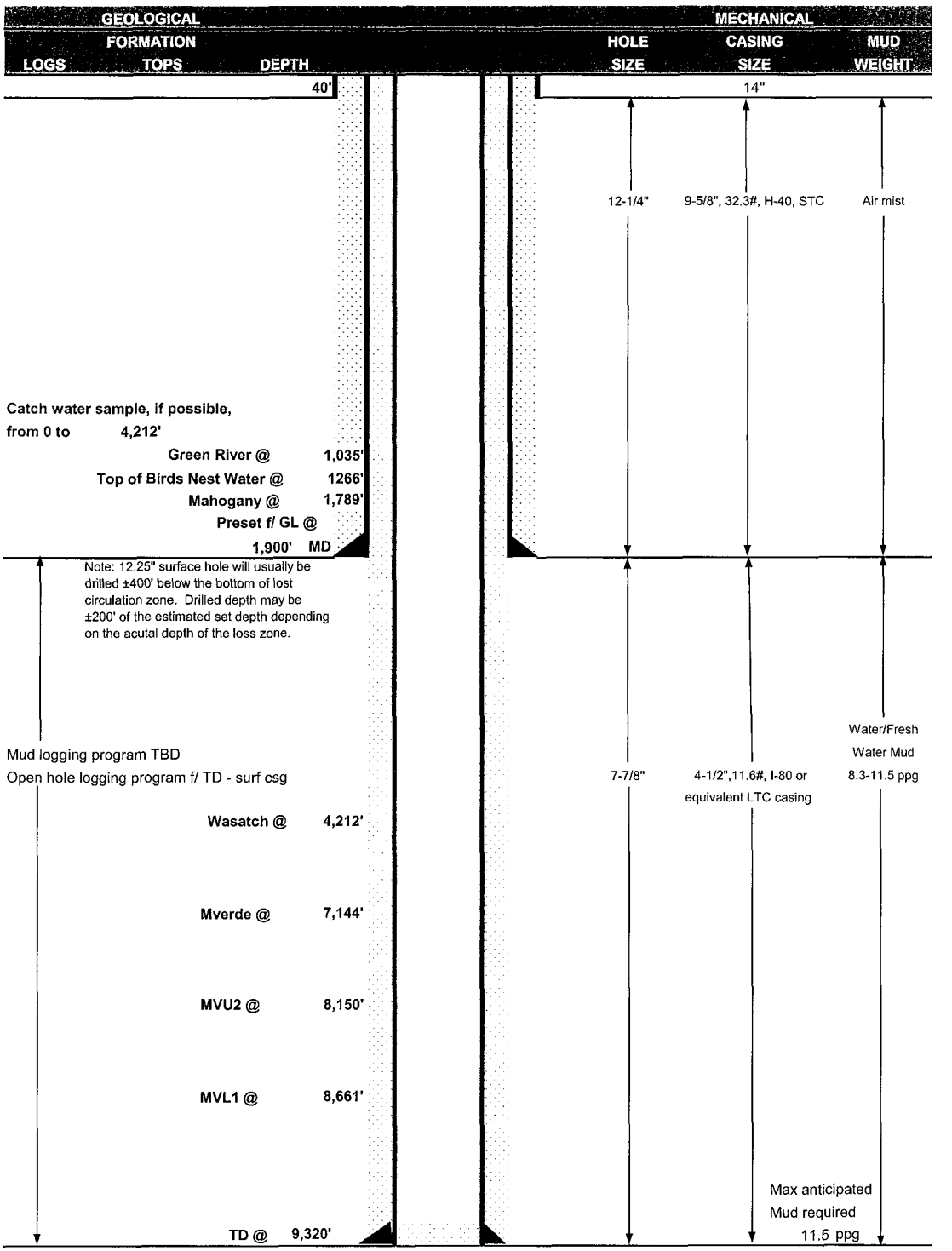
DRILLING SUPERINTENDENT: _____ **DATE:** _____

Randy Bayne

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	April 18, 2007		
WELL NAME	**STATE 1021-31C**			TD	9,320' MD/TVD		
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	ELEVATION	5,294' GL KB 5,309'
SURFACE LOCATION	NE/NW SEC. 31, T10S, R21E 757'FNL, 1981'FWL					BHL	Straight Hole
	Latitude: 39.909314 Longitude: 109.597008						
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: UDOGM (SURF & MINERALS),Tri-County Health Dept.						



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS: BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
						2270	1370	254000
SURFACE	9-5/8"	0 to 1900	32.30	H-40	STC	0.64*******	1.54	4.73
						7780	6350	201000
PRODUCTION	4-1/2"	0 to 9320	11.60	I-80	LTC	2.21	1.14	2.13

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.5 ppg) .22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3523 psi

********* Burst SF is low but csg is much stronger than formation at 2000'. EMW @ 2000' for 2270# is 21.8 ppg or 1.13 psi/ft

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
Option 1	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	50		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite +.25 pps Flocele + 3% salt BWOC	170	35%	11.00	3.82
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	180	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,710'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	410	60%	11.00	3.38
	TAIL	5,610'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1570	60%	14.30	1.31

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

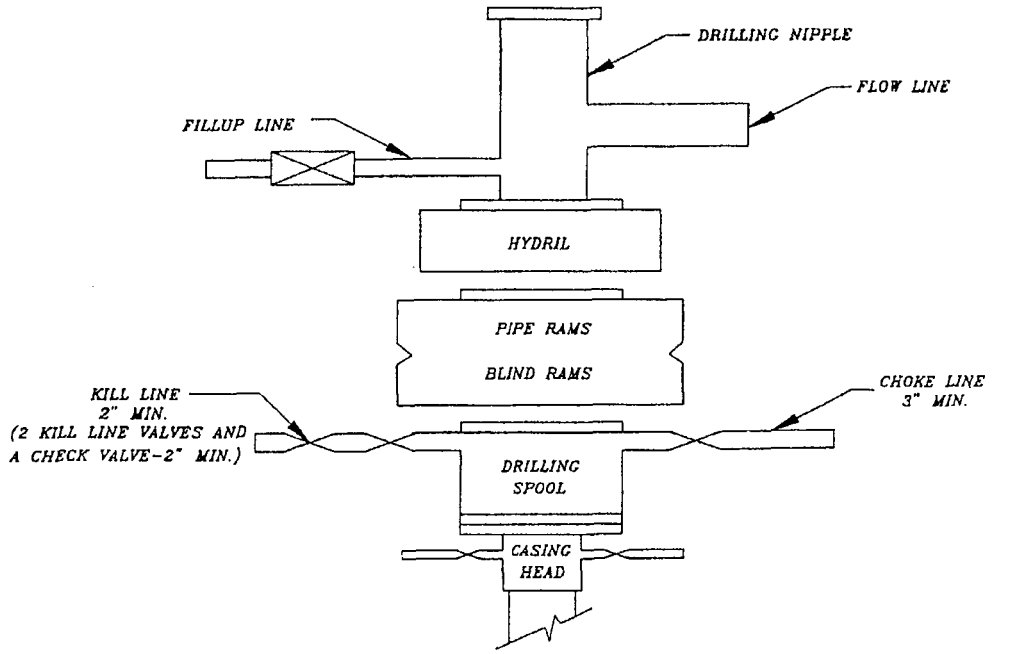
DRILLING ENGINEER: _____ **DATE:** _____

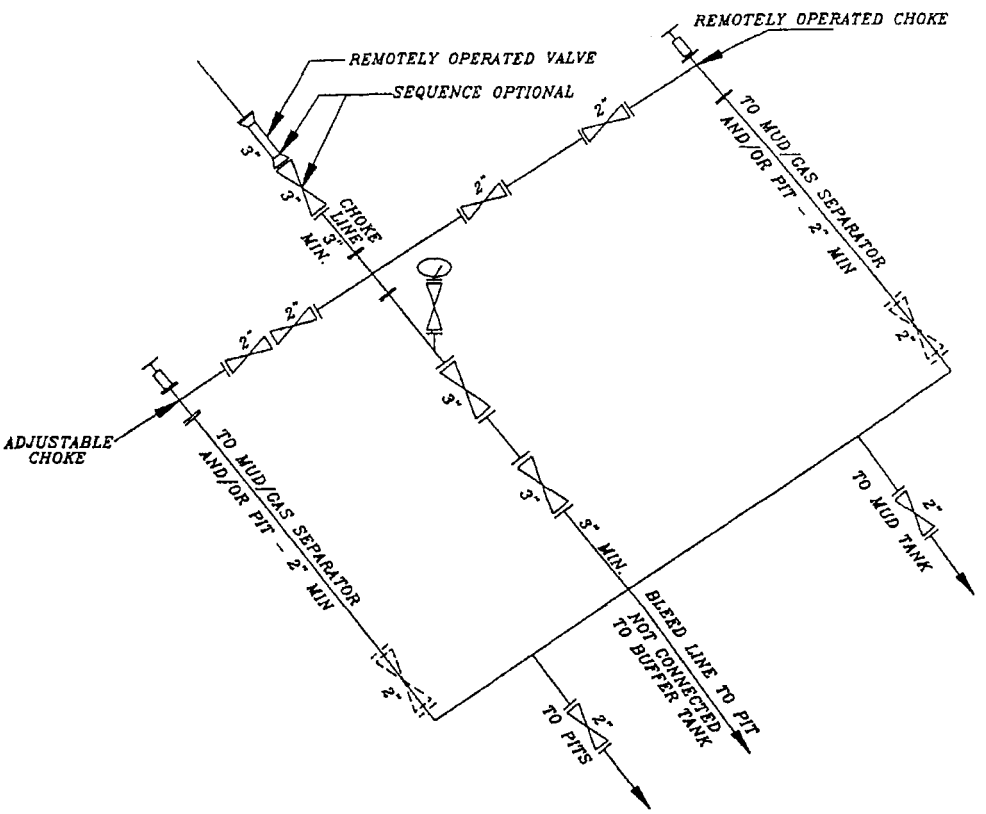
Brad Laney

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Randy Bayne

5M BOP STACK and CHOKE MANIFOLD SYSTEM





STATE 1021-31C
NE/NW SEC. 31, T10S, R21E
Uintah County, UT
ML-22794

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. **Existing Roads:**

Refer to Topo Map A for directions to the location.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

Refer to Topo Maps A and B for location of access roads within a 2 mile radius.

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

2. **Planned Access Roads:**

Approximately 0.25 +/- miles of new access road is proposed. Refer to Topo Map B for the location of the proposed access road.

The upgraded and new portions of the access road will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30 feet. Appropriate water control will be installed to control erosion.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

3. **Location of Existing Wells Within a 1-Mile Radius:**

Please refer to Topo Map C.

4. **Location of Existing & Proposed Facilities:**

The following guidelines will apply if the well is productive.

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain

fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The required color is Carlsbad Canyon, standard color number 2.5Y 6/2.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

Approximately 8,850' +/- of 4" steel pipeline and approximately 7,250' +/- of 6" steel pipeline is proposed from the location to a tie-in point in Section 32-T10S-R21E. Refer to Topo Map D.

5. Location and Type of Water Supply:

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32, T4S, R3E, Water User Claim #43-8496, Application #53617.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

6. Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

7. Methods of Handling Waste Materials:

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

A plastic reinforced liner and felt will be used, it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

Any produced water from the proposed well will be contained in a water tank and will then be hauled By truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S, R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E.

8. Ancillary Facilities:

None are anticipated.

9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

The reserve pit will be lined, and when the reserve pit is closed, the pit liner will be buried below plow depth.

All pits will be fenced according to the following minimum standards:

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance

between any 2 fence posts shall be no greater than 16 feet.

All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

The reserve pit fencing will be on three sides during drilling operations, and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Location size may change prior to the drilling of the well due to current rig availability. If the proposed location is not large enough to accommodate the drilling rig the location will be re-surveyed and a Form 9 shall be submitted.

10. Plans for Reclamation of the Surface:

Producing Location:

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

A plastic, nylon reinforced liner will be used, it shall be torn and perforated before backfilling of the reserve pit.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water (s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

Dry Hole/Abandoned Location:

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

11. Surface Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

12. Other Information:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

A Class III archaeological survey will be submitted when report becomes available.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

13. Lessee's or Operators's Representative & Certification:

Ramey Hoopes
Land Specialist I
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East.
Vernal, UT 84078
(435) 781-7024

Randy Bayne
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, UT 84078
(435)781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by State Surety Bond #RLB0005237.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Ramey Hoopes

4/18/2007
Date

Kerr-McGee Oil & Gas Onshore LP

STATE #1021-31C
SECTION 31, T10S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; TURN LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 15.6 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE BEGINNING OF THE PROPOSED ACCESS FOR THE #1021-31D TO THE NORTH; FOLLOW ROAD FLAGS IN A NORTHERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE NORTHEAST; FOLLOW ROAD FLAGS IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.25 MILES TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 47.65 MILES.

Kerr-McGee Oil & Gas Onshore LP

STATE #1021-31C

LOCATED IN UINTAH COUNTY, UTAH
SECTION 31, T10S, R21E, S.L.B.&M.

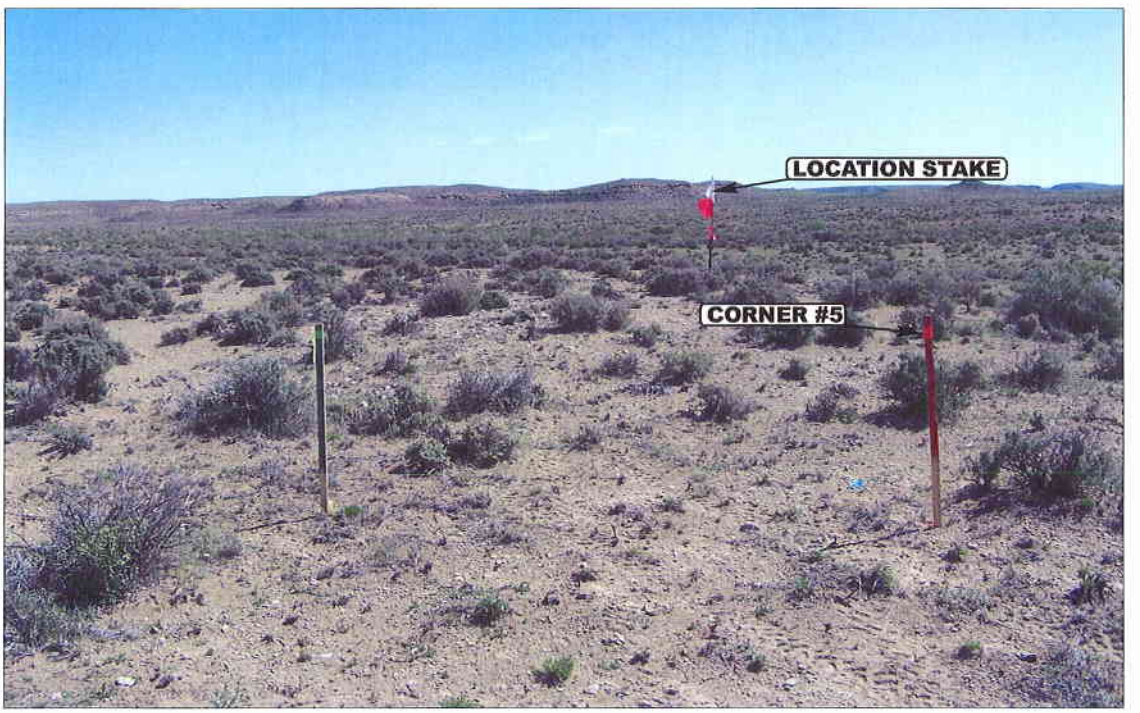
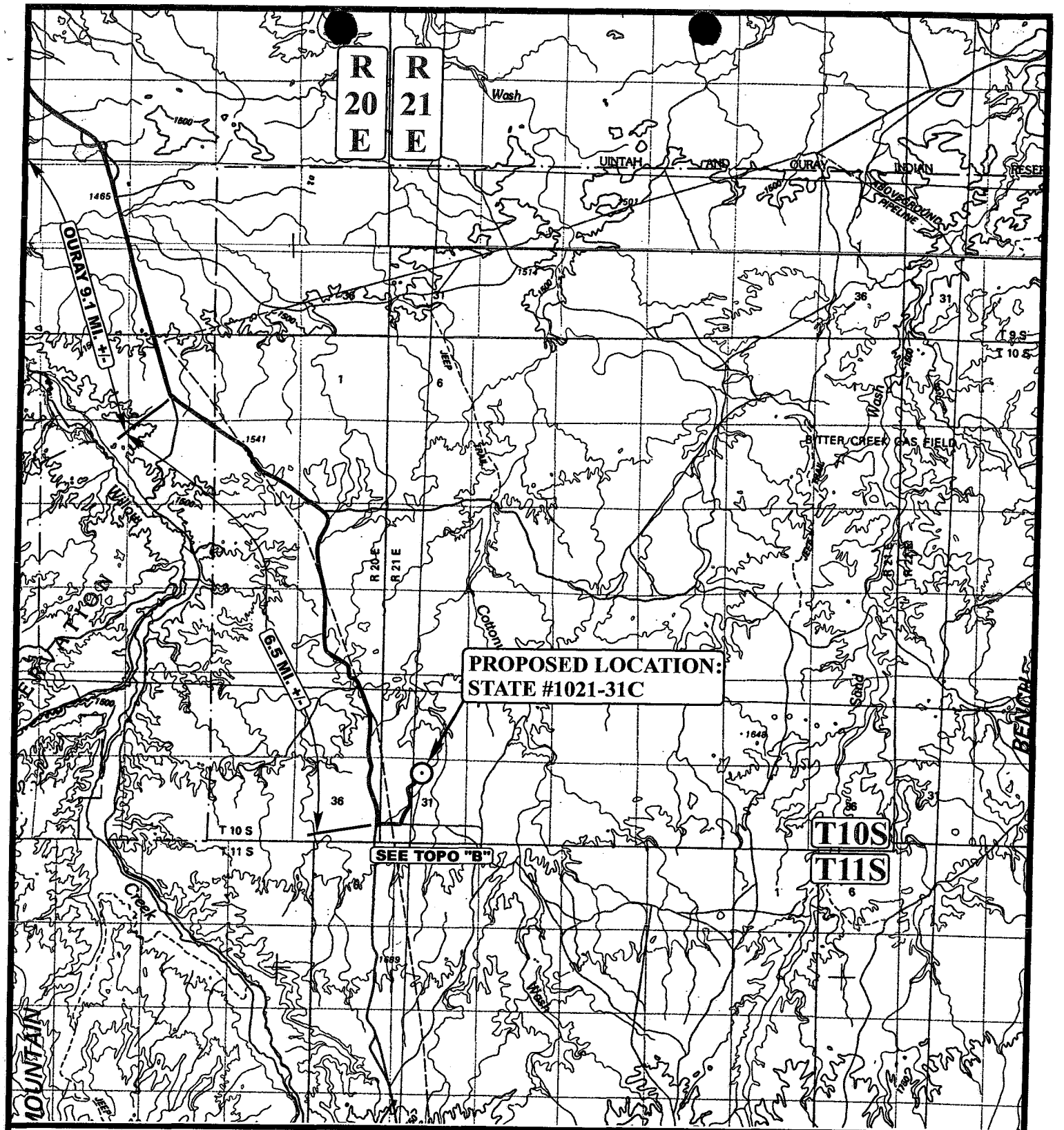


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE **CAMERA ANGLE: NORTHEASTERLY**

PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS **CAMERA ANGLE: NORTHEASTERLY**

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS	01 MONTH	03 DAY	07 YEAR	PHOTO
TAKEN BY: D.K.	DRAWN BY: C.P.	REVISED: 04-13-07		



LEGEND:

⊙ PROPOSED LOCATION

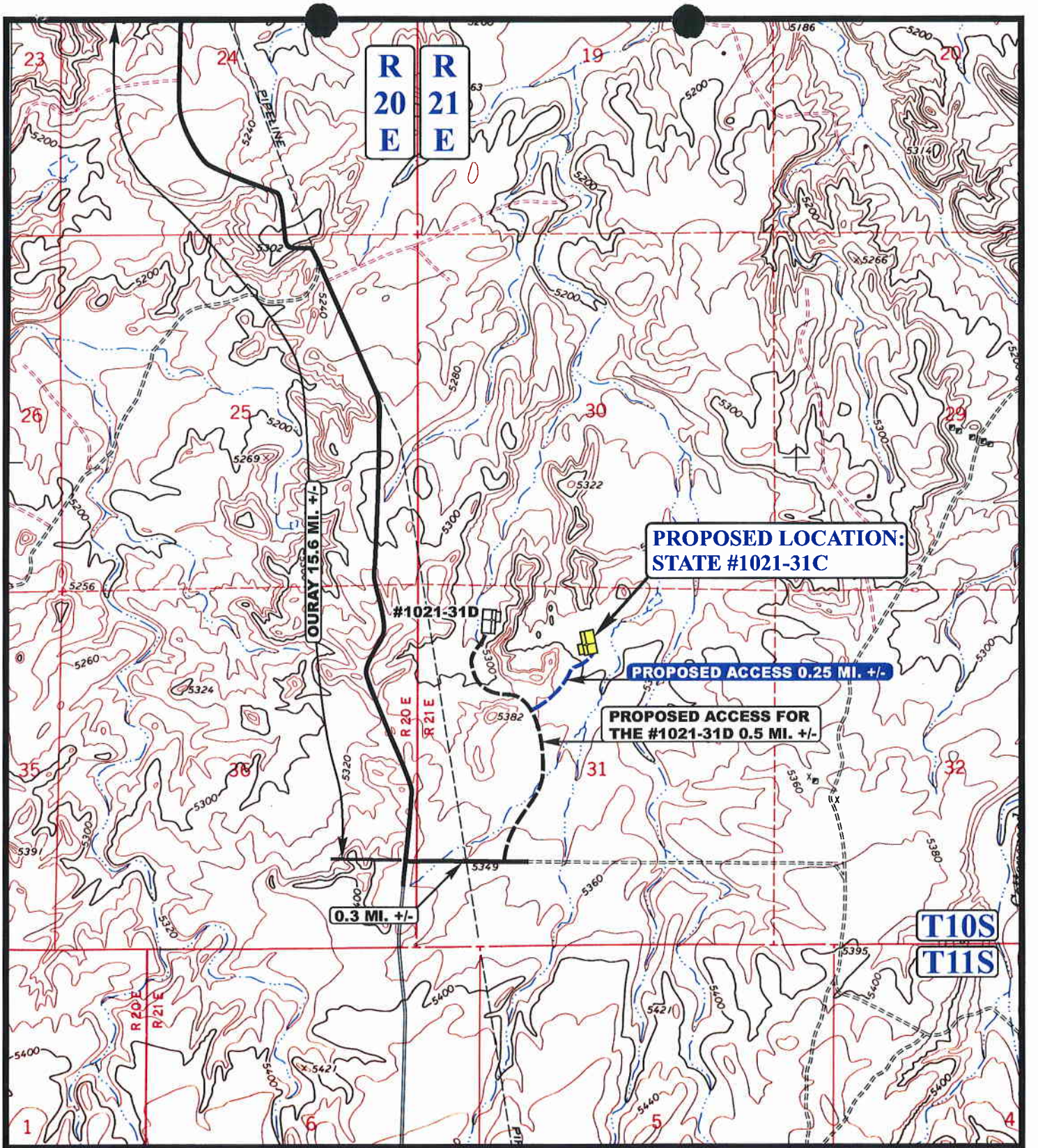
N

Kerr-McGee Oil & Gas Onshore LP

STATE #1021-31C
SECTION 31, T10S, R21E, S.L.B.&M.
857' FNL 2523' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	01 MONTH	03 DAY	07 YEAR
SCALE: 1:100,000	DRAWN BY: C.P.	REVISED: 04-13-07	A TOPO



LEGEND:

EXISTING ROAD

PROPOSED ACCESS ROAD

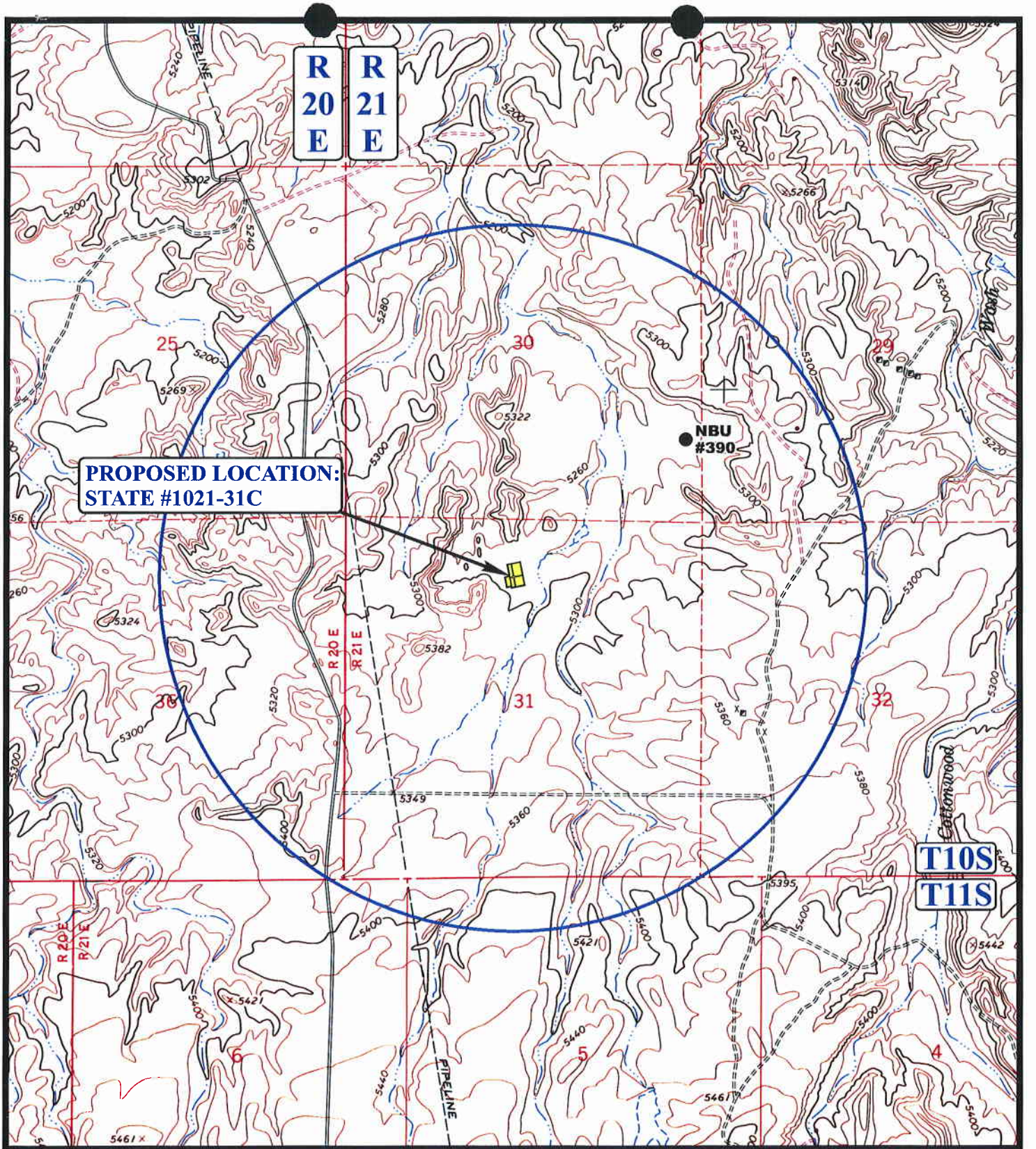
N

Kerr-McGee Oil & Gas Onshore LP

STATE #1021-31C
SECTION 31, T10S, R21E, S.L.B.&M.
857' FNL 2523' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	01 MONTH	03 DAY	07 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: C.P.	REVISED: 04-13-07		



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

N

Kerr-McGee Oil & Gas Onshore LP

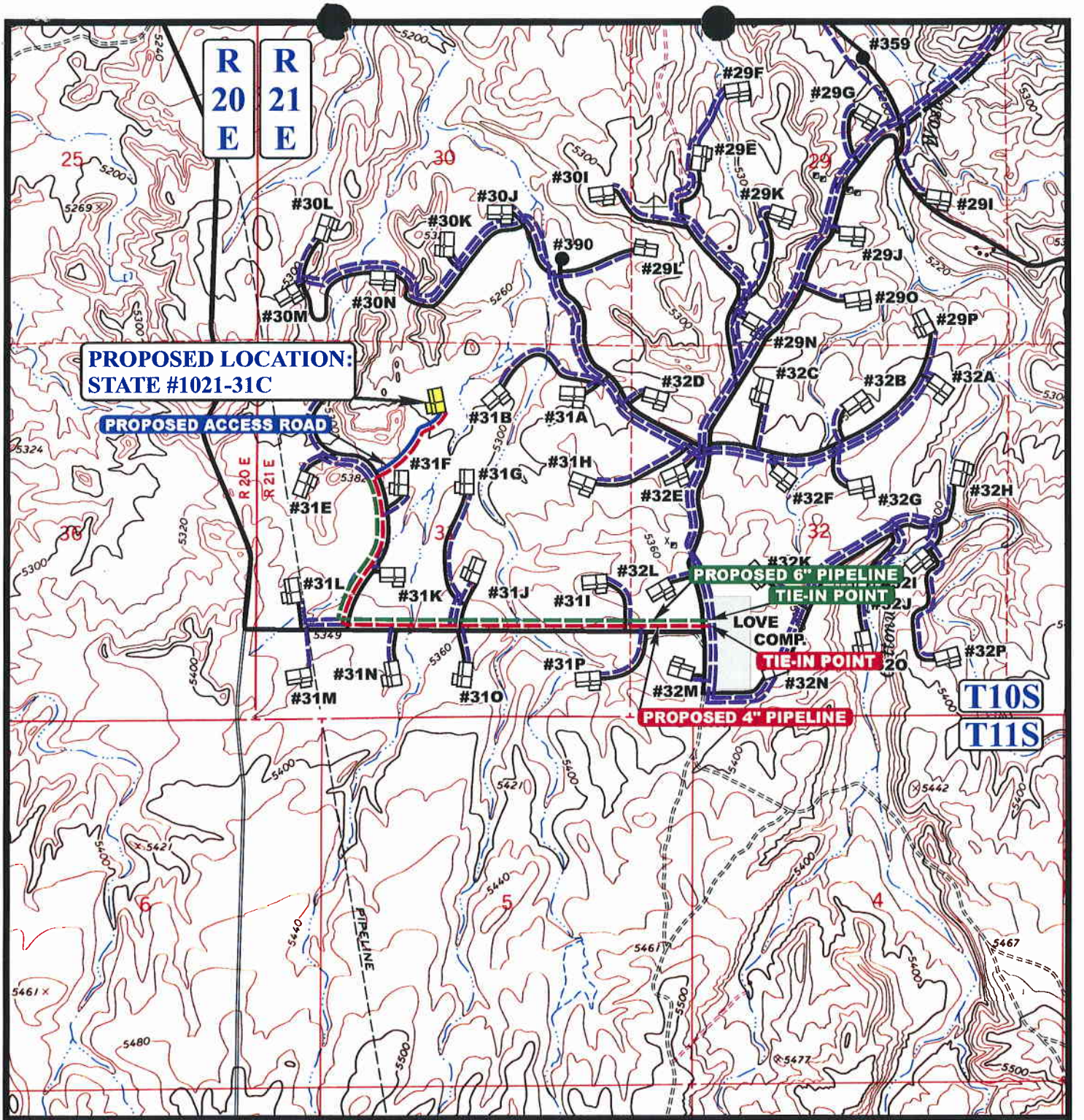
STATE #1021-31C
SECTION 31, T10S, R21E, S.L.B.&M.
857' FNL 2523' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP | 01 MONTH | 03 DAY | 07 YEAR

SCALE: 1" = 2000' | DRAWN BY: C.P. | REVISED: 04-13-07

C TOPO



APPROXIMATE TOTAL 6" PIPELINE DISTANCE = 7,250' +/-

APPROXIMATE TOTAL 4" PIPELINE DISTANCE = 8,850' +/-

LEGEND:

PROPOSED ACCESS ROAD

EXISTING PIPELINE

PROPOSED PIPELINE

PROPOSED PIPELINE (SERVICING OTHER WELLS)

N

Kerr-McGee Oil & Gas Onshore LP

STATE #1021-31C
SECTION 31, T10S, R21E, S.L.B.&M.
857' FNL 2523' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP | 01 MONTH | 03 DAY | 07 YEAR

SCALE: 1" =2000' | DRAWN BY: C.P. | REVISED: 04-13-07

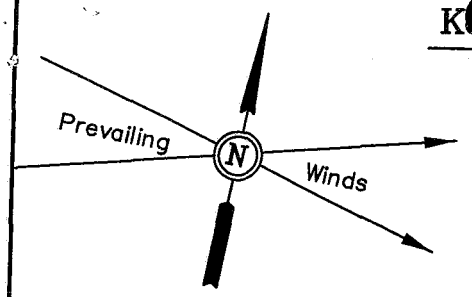
D TOPO

K[illegible]-McGee Oil & Gas Onsh[illegible] LP

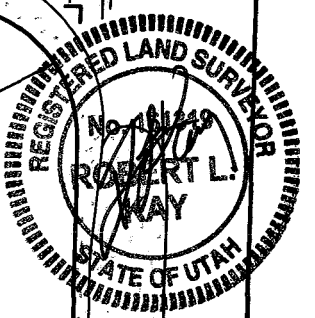
FIGURE #1

LOCATION LAYOUT FOR

STATE #1021-31C
SECTION 31, T10S, R21E, S.L.B.&M.
857' FNL 2523' FWL



SCALE: 1" = 50'
DATE: 4-12-07
Drawn By: K.G.



Approx. Toe of Fill Slope

F-6.2'
El. 286.9'

F-5.2'
El. 287.9'

F-5.7'
El. 287.4'

Sta. 3+50

Round Corners as Needed

Existing Drainage

Existing Drainage

NOTE:
Flare Pit is to be located a min. of 100' from the Well Head.

PIPE TUBS

CATWALK

PIPE RACKS

Pit Topsoil

Topsoil Stockpile

El. 293.7'
C-10.6'
(btm. pit)

Bloole Line

C-2.4'
El. 295.5'

C-2.1'
El. 295.2'

RIG

F-3.6'
El. 289.5'

Sta. 1+70

TOILET

TRAILER

C-2.2'
El. 295.3'

MUD TANKS

DOG HOUSE

LIGHT PLANT

BOILER

MUD TANKS

PUMP HOUSE

WATER TANK

RESERVE PITS
(10' Deep)

Total Pit Capacity
W/2' of Freeboard
= 9,850 Bbls. ±
Total Pit Volume
= 2,780 Cu. Yds.

SLOPE 1 1/2 : 1

15' WIDE BENCH

Reserve Pit Backfill & Spoils Stockpile

C-4.4'
El. 297.5'

TRASH

Sta. 0+45

15' WIDE BENCH

PROPANE STORAGE

F-0.7'
El. 292.4'

El. 300.2'
C-17.1'
(btm. pit)

C-3.1'
El. 296.2'

Sta. 0+00

C-7.0'
El. 300.1'

Approx. Top of Cut Slope

Proposed Access Road

NOTES:

Elev. Ungraded Ground At Loc. Stake = 5295.2'

FINISHED GRADE ELEV. AT LOC. STAKE = 5293.1'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

1" = 20'
X-Section Scale
1" = 50'
DATE: 4-12-07
Drawn By: K.G.

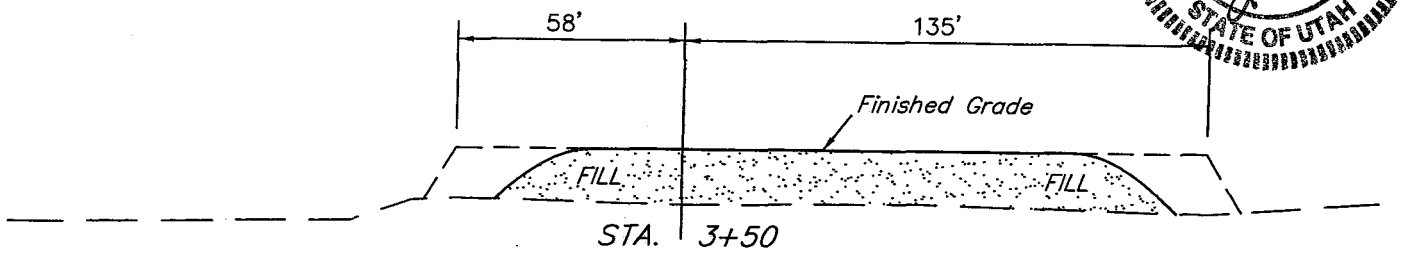
K[illegible]-McGee Oil & Gas Onsh[illegible] LP

FIGURE #2

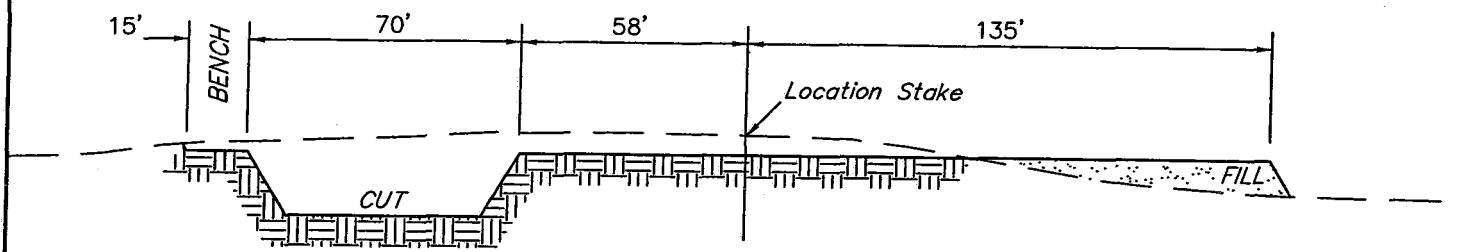
TYPICAL CROSS SECTIONS FOR

STATE #1021-31C
SECTION 31, T10S, R21E, S.L.B.&M.
857' FNL 2523' FWL

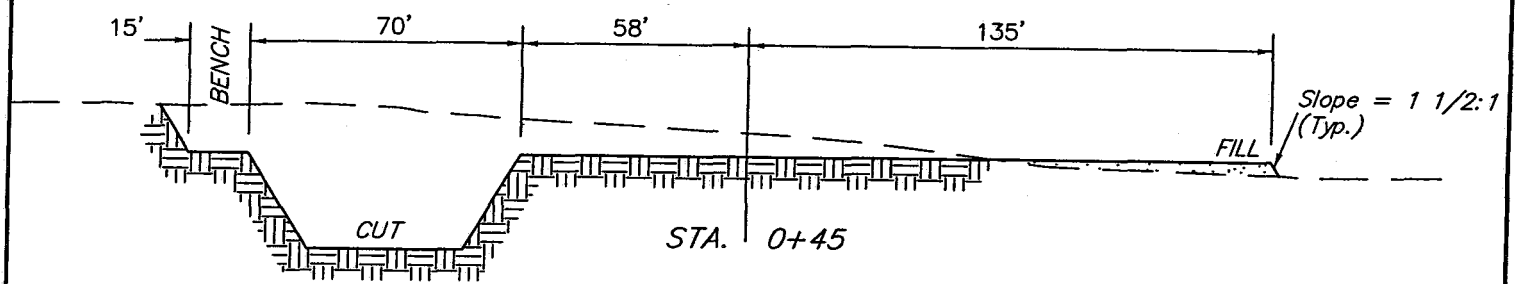
REGISTERED LAND SURVEYOR
No. 161319
ROB[illegible] L.
[illegible]
STATE OF UTAH



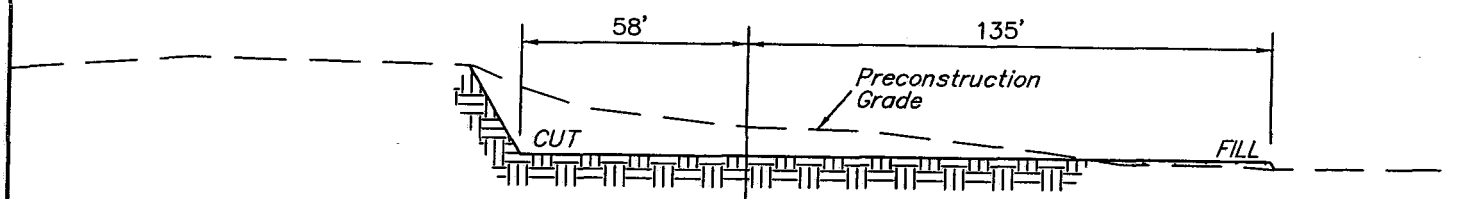
STA. 3+50



STA. 1+70



STA. 0+45



STA. 0+00

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

CUT
(6") Topsoil Stripping = 1,710 Cu. Yds.
Remaining Location = 5,940 Cu. Yds.

TOTAL CUT = 7,650 CU.YDS.
FILL = 4,550 CU.YDS.

EXCESS MATERIAL = 3,100 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.) = 3,100 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation) = 0 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
86 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 04/23/2007

API NO. ASSIGNED: 43-047-39115

WELL NAME: STATE 1021-31C

OPERATOR: KERR-MCGEE OIL & GAS (N2995)

PHONE NUMBER: 435-781-7024

CONTACT: SHEILA UPCHEGO

PROPOSED LOCATION:

NENW 31 100S 210E

SURFACE: 0857 FNL 2523 FWL

BOTTOM: 0857 FNL 2523 FWL

COUNTY: UINTAH

LATITUDE: 39.90909 LONGITUDE: -109.5944

UTM SURF EASTINGS: 620147 NORTHINGS: 4418403

FIELD NAME: NATURAL BUTTES (630)

INSPECT LOCATN BY: / /		
Tech Review	**Initials**	**Date**
Engineering	DKD	6/4/08
Geology		
Surface		

LEASE TYPE: 3 - State

LEASE NUMBER: ML-22794

SURFACE OWNER: 3 - State

PROPOSED FORMATION: WSMVD

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[] Ind[] Sta[] Fee[]
(No. 22013542)

N Potash (Y/N)

Y Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 43-8496)

N RDCC Review (Y/N)
(Date:)

N/A Fee Surf Agreement (Y/N)

N/A Intent to Commingle (Y/N)

LOCATION AND SITING:

___ R649-2-3.

Unit: ___

___ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells

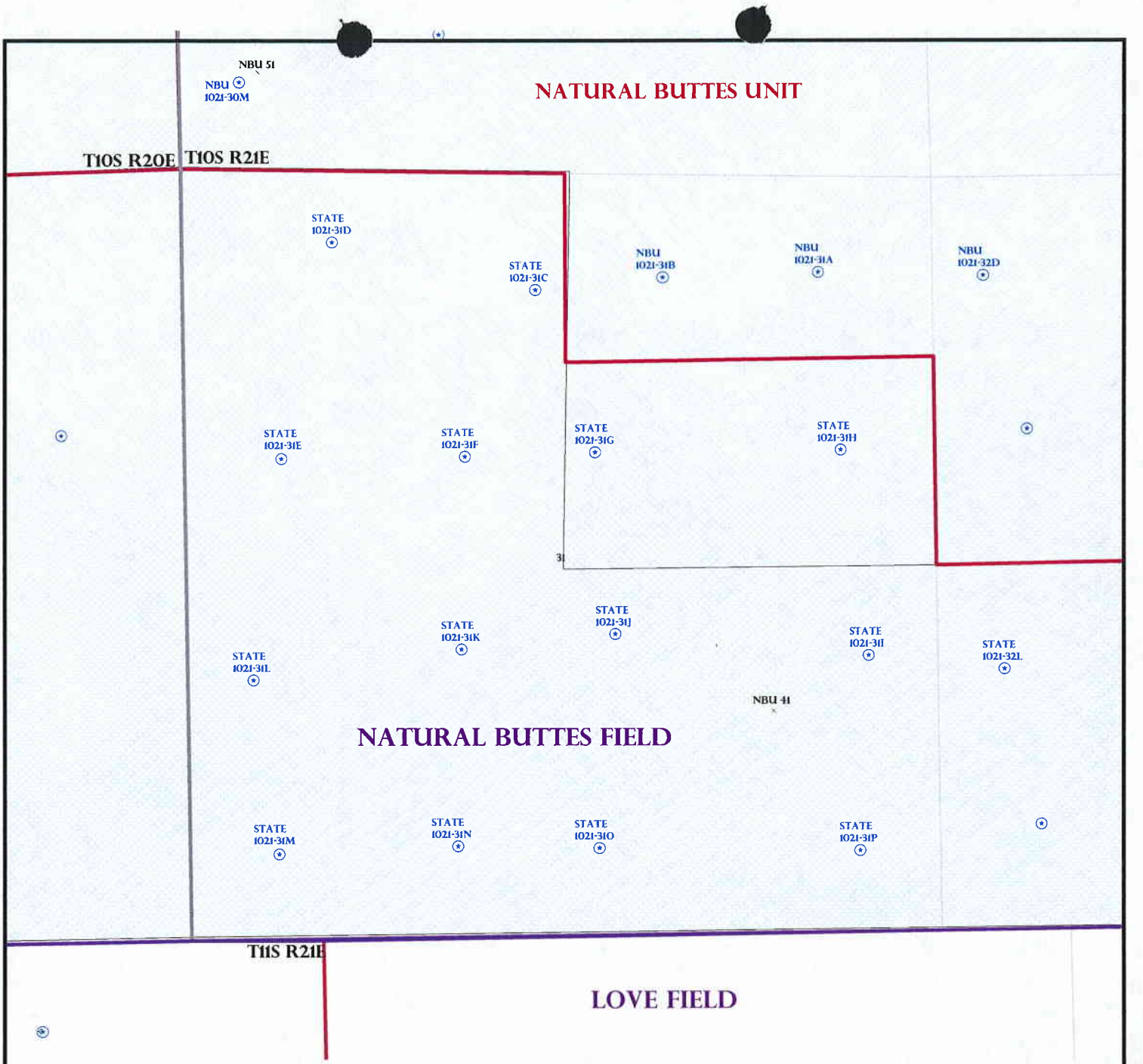
✓ R649-3-3. Exception

___ Drilling Unit
Board Cause No: ___
Eff Date: ___
Siting: ___

___ R649-3-11. Directional Drill

COMMENTS: Need Presite (05-15-08)

STIPULATIONS: 1- Spacing Stip
2- STATEMENT OF BASIS
3- Surface Casing Cmt Stip
4- Oil Shale



OPERATOR: KERR MCGEE O&G (N2995)

SEC: 31 T.10S R. 21E

FIELD: NATURAL BUTTES (630)

COUNTY: UINTAH

SPACING: R649-3-3 / EXCEPTION LOCATION

Field Status
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED

Unit Status
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Wells Status
- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- TEST WELL
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL
- DRILLING

Utah Oil Gas and Mining

N
W E
S

PREPARED BY: DIANA MASON

DATE: 25-APRIL-2007

Application for Permit to Drill
Statement of Basis

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
315	43-047-39115-00-00		GW	S	No

Operator KERR-MCGEE OIL & GAS ONSHO **Surface Owner-APD**
Well Name STATE 1021-31C **Unit**
Field UNDESIGNATED **Type of Work**
Location NENW 31 10S 21E S 857 FNL 2523 FWL GPS Coord (UTM) 620147E 4418403N

Geologic Statement of Basis

Kerr McGee proposes to set 1,900' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,800'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 31. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill 5/19/2008
APD Evaluator **Date / Time**

Surface Statement of Basis

The general area is within the Love area of Natural Buttes in the upper Cottonwood Wash Drainage. The area is characterized by rolling hills and benches, which are frequently intersected by somewhat gentle draws, which flow into Cottonwood Wash. The draws are occasionally rimed with steep side hills, which have exposed sand stone bedrock cliffs along the rims. Cottonwood Wash is an ephemeral drainage, which drains northerly approximately 11 miles to the White River. No seeps, springs or streams exist in the area. An occasional pond collecting runoff for livestock and antelope occurs.

This location is approximately 21 miles southeast of Ouray, Utah and is accessed by the Seep Ridge Road then by existing or planned oil field development roads to within 0.25 miles of the proposed site. New construction will be needed from this point.

The proposed location begins near the south rim of a valley which leads away from a rise to the south and extends north will fill into uneven or undulating terrain. The west side of the location is limited by a shallow draw which will be avoided. No drainages will be intersected and no diversions will be required. The main stem of Cottonwood Wash is about 0.5 miles to the east An original location was staked about 640 feet to the west in steeper terrain. Kerr McGee chose to move to the new location to avoid excessive earth movement.

Both the surface and minerals are owned by SITLA. Ed Bonner and Jim Davis were invited to the pre-site visit. Neither attended. The selected location appears to be the best site for drilling and operating a well in the immediate area.

Ben Williams representing the UDWR attended the visit. He stated the area is classified as yearlong critical habitat for antelope but the lack of water not forage is the limiting factor affecting the herd in the area. He recommended no restrictions for antelope. No other wildlife is expected to be significantly affected. He gave Raleen White of Kerr McGee a copy of his wildlife evaluation and a UDWR recommended seed mix to be used when re-vegetating the locations.

Floyd Bartlett 5/15/2008
Onsite Evaluator **Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHO
Well Name STATE 1021-31C
API Number 43-047-39115-0 **APD No** 315 **Field/Unit** UNDESIGNATED
Location: 1/4,1/4 NENW **Sec** 31 **Tw** 10S **Rng** 21E 857 FNL 2523 FWL
GPS Coord (UTM) 620150 4418399 **Surface Owner**

Participants

Floyd Bartlett (DOGM), Raleen White and Ramie Hoops (Kerr McGee), Ben Williams (UDWR) and David Kay (Uintah Engineering and Land Surveying)

Regional/Local Setting & Topography

Location has been moved from a previously stakes site which was approximately 640 feet to the west.

The general area is within the Love area of Natural Buttes in the upper Cottonwood Wash Drainage. The area is characterized by rolling hills and benches, which are frequently intersected by somewhat gentle draws, which flow into Cottonwood Wash. The draws are occasionally rimed with steep side hills, which have exposed sand stone bedrock cliffs along the rims. Cottonwood Wash is an ephemeral drainage, which drains northerly approximately 11 miles to the White River. No seeps, springs or streams exist in the area. An occasional pond collecting runoff for livestock and antelope occurs.

This location is approximately 21 miles southeast of Ouray, Utah and is accessed by the Seep Ridge Road then by existing or planned oil field development roads to within 0.25 miles of the proposed site. New construction will be needed from this point.

The proposed location begins near the south rim of a valley which leads away from a rise to the south and extends north will fill into uneven or undulating terrain. The west side of the location is limited by a shallow draw which will be avoided. No drainages will be intersected and no diversions will be required. The main stem of Cottonwood Wash is about 0.5 miles to the east An original location was staked about 640 feet to the west in steeper terrain. Kerr McGee chose to move to the new location to avoid excessive earth movement.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use
Grazing
Recreational
Wildlfe Habitat

New Road Miles	Well Pad		Src Const Material	Surface Formation
0.25	**Width** 278	**Length** 350	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetland N

Flora / Fauna

Vegetation is a sparse desert shrub type. Horsebrush, shadscale, curly mesquite, halogeton, prickly pear, greasewood, cheatgrass, loco weed, broom snakeweed and spring annuals are present.

Antelope, cattle, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Soils are a shallow sandy loam with some exposed bedrock.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? **Paleo Potental Observed?** N **Cultural Survey Run?** **Cultural Resources?**

Reserve Pit

Site-Specific Factors		Site Ranking
Distance to Groundwater (feet)	100 to 200	5
Distance to Surface Water (feet)	300 to 1000	2
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	300 to 1320	10
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	<10	0
Affected Populations	<10	0
Presence Nearby Utility Conduits	Not Present	0
	Final Score	32 1 **Sensitivity Level**

Characteristics / Requirements

The proposed reserve pit is 70' x 150' x 10' deep located in a cut on the southwest corner of the location. A 20 mil liner with a felt sub-liner is planned by Kerr McGee.

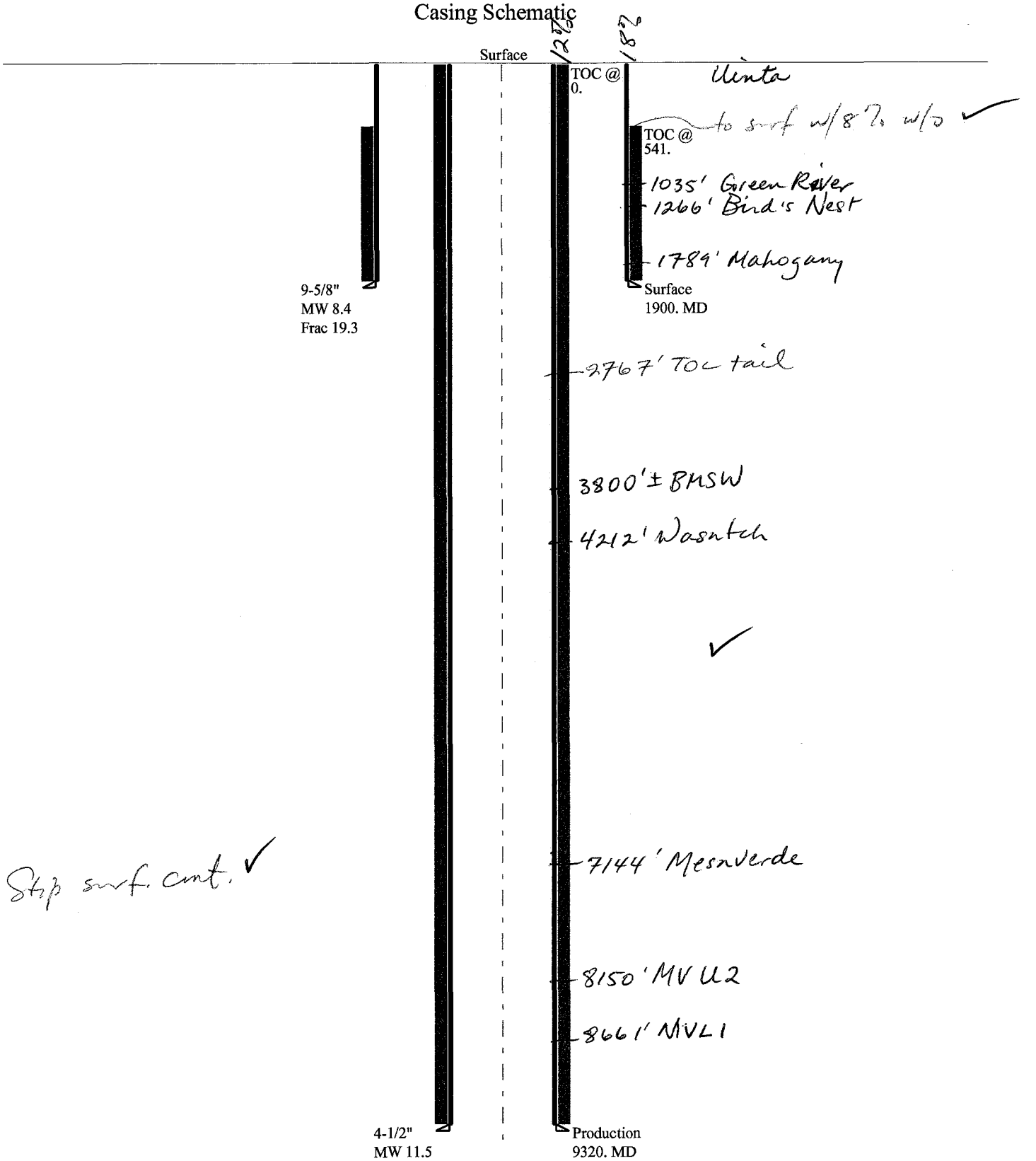
Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 16 **Pit Underlayment Required?** Y

Other Observations / Comments

Floyd Bartlett	5/15/2008
Evaluator	**Date / Time**

2008-06 Kerr McGee ST 1021-31C

Casing Schematic



Well name:	**2008-06 Kerr McGee ST 1021-31C**
Operator:	**Kerr McGee Oil & Gas Onshore L.P.**
String type:	Surface
Project ID:	43-047-39115
Location:	Uintah County, Utah

Design parameters:

Collapse
Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,672 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 1,900 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 1,666 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 102 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,300 ft

Cement top: 541 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 9,320 ft
Next mud weight: 11.500 ppg
Next setting BHP: 5,568 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 1,900 ft
Injection pressure: 1,900 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	1900	9.625	32.30	H-40	ST&C	1900	1900	8.876	839.5

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	829	1370	1.652	1900	2270	1.19	54	254	4.72 J

Prepared by: Helen Sadik-Macdonald, Div of Oil,Gas & Minerals
Phone: (801) 538-5357
FAX: (801) 359-3940
Date: June 2,2008
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 1900 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**2008-06 Kerr McGee ST 1021-31C**
Operator:	**Kerr McGee Oil & Gas Onshore L.P.**
String type:	Production
Project ID:	43-047-39115
Location:	Uintah County, Utah

Design parameters:

Collapse

Mud weight: 11.500 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 3,517 psi

Internal gradient: 0.220 psi/ft

Calculated BHP 5,568 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 7,718 ft

Environment:

H2S considered? No

Surface temperature: 75 °F

Bottom hole temperature: 205 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,500 ft

Cement top: Surface

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	9320	4.5	11.60	I-80	LT&C	9320	9320	3.875	813.3

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	5568	6360	1.142	5568	7780	1.40	90	212	2.37 J

Prepared by: Helen Sadik-Macdonald, Div of Oil,Gas & Minerals
Phone: (801) 538-5357
FAX: (801) 359-3940

Date: June 2,2008

Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9320 ft, a mud weight of 11.5 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

BOPE REVIEW — Kerr-McGee ST 1021-31C API 43-047-39115

INPUT

Well Name	Kerr-McGee ST 1021-31C API 43-047-39115			
	String 1	String 2		
Casing Size (")	9 5/8	4 1/2		
Setting Depth (TVD)	1900	9320		
Previous Shoe Setting Depth (TVD)	40	1900		
Max Mud Weight (ppg)	8.4	11.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	2270	7780		
Operators Max Anticipated Pressure (psi)	5778	11.9 ppg		

Calculations	String 1	9 5/8 "	
Max BHP [psi]	.052*Setting Depth*MW =	830	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	602	NO → OK. Air Drill to surface shoe
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	412	YES
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth) =	421	← NO Reasonable
Required Casing/BOPE Test Pressure		1589 psi	
*Max Pressure Allowed @ Previous Casing Shoe =		40 psi	*Assumes 1psi/ft frac gradient

Calculations	String 2	4 1/2 "	
Max BHP [psi]	.052*Setting Depth*MW =	5573	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	4455	YES
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	3523	YES ✓
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth) =	3941	← NO OK.
Required Casing/BOPE Test Pressure		5000 psi	
*Max Pressure Allowed @ Previous Casing Shoe =		1900 psi	*Assumes 1psi/ft frac gradient

From: Ed Bonner
To: Mason, Diana
Date: 6/7/2007 4:43 PM
Subject: Well Clearance

CC: Davis, Jim; Garrison, LaVonne; Hill, Brad; Hunt, Gil

The following wells have been given cultural resources clearance by the Trust Lands Cultural Resources Group:

Enduring Resources, LLC
- Coyote Basin 8-25-11-16 (API 43 047 39189)

EOG Resources, Inc
- NBU 635-12E (API 43 047 39190)
- NBU 636-12E (API 43 047 39191)
- NBU 632-12E (API 43 047 39192)
- NBU 633-12E (API 43 047 39193)
- NBU 634-12E (API 43 047 39194)

Kerr McGee Oil & Gas Onshore LP
- NBU 1022-25B (API 43 047 39032)
- NBU 1022-25G (API 43 047 39142)
- NBU 1021-31A (API 43 047 39111)
- State 1021-31M (API 43 047 39112)
- State 1021-31E (API 43 047 39113)
- State 1021-31D (API 43 047 39114)
- State 1021-31C (API 43 047 39115)
- NBU 1021-31B (API 43 047 39116)
- State 1021-31P (API 43 047 39117)
- State 1021-31L (API 43 047 39118)
- State 1021-31N (API 43 047 39119)
- State 1021-31O (API 43 047 39120)
- State 1021-31I (API 43 047 39121)
- State 1021-31J (API 43 047 39122)
- State 1021-31K (API 43 047 39123)
- State 1021-31F (API 43 047 39124)
- State 1021-31G (API 43 047 39125)
- State 1021-31H (API 43 047 39126)

If you have any questions regarding this matter please give me a call.

KerrMcGee

Kerr-McGee Oil & Gas Onshore LP
PO Box [illegible]
Denver, CO 80217-3779

December 11, 2008

Mrs. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

RE: Exception Location
State 1021-31C
NENW (857' FNL, 2,523' FWL) Sec 31-T10S-R21E
Uintah County, Utah

Dear Mrs. Mason:

Kerr-McGee Oil & Gas Onshore L.P. has submitted a permit to drill the captioned well to test the Wasatch and Mesaverde formations. The well is located at an exception location to State Rule **649-3-2 (State Wide)**. The well location is at a legal location within the center quarter-quarter section, but is an exception location due to an irregular section. Kerr-McGee owns 100% of the leasehold within 460 feet of the exception location of the offset lands and has no objection to the exception location.

Kerr-McGee requests your approval of this exception location under State Rule **649-3-3**. If you have any questions or require any additional information, please do not hesitate to call me at 720-929-6698.

Sincerely,

James C. Colligan III
Landman

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil Gas and Mining

JOHN R. BAZA
Division Director

December 11, 2008

Kerr-McGee Oil & Gas Onshore, LP
1368 S 1200 E
Vernal, UT 84078

Re: State 1021-31C Well, 857' FNL, 2523' FWL, NE NW, Sec. 31, T. 10 South, R. 21 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-39115.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Uintah County Assessor
SITLA

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

Operator: Kerr-McGee Oil & Gas Onshore, LP

Well Name & Number State 1021-31C

API Number: 43-047-39115

Lease: ML-22794

Location: NE NW **Sec.** 31 **T.** 10 South **R.** 21 East

Conditions of Approval

1. **General**

   Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. **Notification Requirements**

   The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

   - 24 hours prior to cementing or testing casing – contact Dan Jarvis
   - 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
   - 24 hours prior to spudding the well – contact Carol Daniels
   - Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
   - Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

   The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

   - Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
   - Any changes to the approved drilling plan – contact Dustin Doucet

   The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

   - Dan Jarvis at: (801) 538-5338 office (801) 942-0871 home
   - Carol Daniels at: (801) 538-5284 office
   - Dustin Doucet at: (801) 538-5281 office (801) 733-0983 home

3. **Reporting Requirements**

   All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

6. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.

7. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

8. Surface casing shall be cemented to the surface.

API Well No: 43047391150000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22794

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: STATE 1021-31C

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047391150000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0857 FNL 2523 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 31 Township: 10.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/11/2009	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: December 14, 2009

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 12/10/2009

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047391150000

API: 43047391150000
Well Name: STATE 1021-31C
Location: 0857 FNL 2523 FWL QTR NENW SEC 31 TWNP 100S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 12/11/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 12/10/2009
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: December 14, 2009
By:

RECEIVED December 10, 2009

API Well No: 43047391150000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22794

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
STATE 1021-31C

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047391150000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6007 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0857 FNL 2523 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NENW Section: 31 Township: 10.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/8/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
☐ SPUD REPORT Date of Spud:	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: 12/13/2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE		**DATE**
N/A		12/8/2010

RECEIVED December 08, 2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047391150000

API: 43047391150000
Well Name: STATE 1021-31C
Location: 0857 FNL 2523 FWL QTR NENW SEC 31 TWNP 100S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 12/11/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 12/8/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: 12/13/2010

By: 

RECEIVED December 08, 2010

GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

December 16, 2011

Kerr McGee Oil & Gas Onshore, L.P.
P.O. Box 173779
Denver, CO 80217

Re: APD Rescinded – State 1021-31C, Sec. 31, T. 10S, R. 21E
Uintah County, Utah API No. 43-047-39115

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on December 11, 2008. On December 14, 2009 and December 13, 2010, the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective December 16, 2011.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason
Environmental Scientist

cc: Well File
SITLA, Ed Bonner

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114 -5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR
OIL, GAS & MINING